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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* STEFAAN DE CNODDER, OMAR ELLOUMI, and  
KENNY JULIEN PAULINE PAUWELS

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Appeal 2009-007028  
Application 10/026,690<sup>1</sup>  
Technology Center 2400

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Before JOHN C. MARTIN, JOSEPH F. RUGGIERO,  
and MARC S. HOFF, *Administrative Patent Judges*.

HOFF, *Administrative Patent Judge*.

DECISION ON APPEAL<sup>2</sup>

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<sup>1</sup> The real party in interest is ALCATEL.

<sup>2</sup> The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, or filing a request for rehearing, as recited in 37 C.F.R. § 41.52, begins to run from the “MAIL DATE” (paper delivery mode) or the “NOTIFICATION DATE” (electronic delivery mode) shown on the PTOL-90A cover letter attached to this decision.

## STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134(a) from a Final Rejection of claims 1-16. We have jurisdiction under 35 U.S.C. § 6(b).

We reverse.

Appellants' invention relates to a packet marking determining method and a related device for determining the marking of packets of an incoming packet-flow in conformance with a traffic policy. A first step designates a threshold value which lies between a minimum and a maximum value of the token count. A second step includes detecting the actual value of the token count or traffic reservation parameter. When the actual value of the token count exceeds the threshold value, the last step includes marking the packets based on the actual value of the token count. In the alternative, when the actual value of the token count is below the threshold value, the last step includes marking the packets based on the pre-assigned priority of the packet (Abstract; Spec. 2:9-23).

Claim 1 is exemplary:

1. A marking determining method, for determining a packet marking of packets of an incoming packet-flow, in order to keep said packets in conformance with a traffic policy,  
said determining being based on an actual value of a traffic reservation parameter, said traffic reservation parameter being a measure of available network resources dedicated to packets of said incoming packet-flow having a pre-assigned priority,  
said determining further being based on said pre-assigned priority of said packets of said incoming packet flow, said traffic reservation parameter having a predetermined minimum and a maximum value,  
said marking determining method comprising:

holding a threshold value for said traffic reservation parameter, said threshold value lying between said minimum and said maximum value of said traffic reservation parameter;

metering said actual value of said traffic reservation parameter; and

if said actual value of said traffic reservation parameter exceeds said threshold value for said traffic reservation parameter, determining said packet marking of and marking each of said packets based on said actual value of said traffic reservation parameter, and if said actual value of said traffic reservation parameter is below said threshold value for said traffic reservation parameter, determining said packet marking of and marking each of said packets based on a pre-assigned priority of the packet.

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Chang	US 5,367,523	Nov. 22, 1994
Troxel	US 6,147,970	Nov. 14, 2000
Wang	US 6,748,435	Jun. 8, 2004

Claims 1-3, 5-10, and 12-16 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Troxel in view of Wang.

Claims 4 and 11 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Troxel in view of Wang and Chang.

Rather than repeat the arguments of Appellants or the Examiner, we make reference to the Appeal Brief (filed June 23, 2008), the Reply Brief (filed October 31, 2008), and the Examiner's Answer (mailed September 3, 2008) for their respective details.

## ISSUE

Appellants contend that Troxel clearly suggests that when packets are (1) below the direct value of the token counter for high priority packets or

(2) below the direct value of the token counter minus the normal priority threshold value for low priority packets, the packets are all marked non-conforming based on the token value and not based on a pre-assigned priority (App. Br. 12, Reply Br. 6).

Appellants' contentions present us with the following issue: Do the references disclose a method of marking packets, wherein if the actual value of the traffic reservation parameter is below the threshold value for the traffic reservation parameter, determining the packet marking of and marking each of the packets based on a pre-assigned priority of the packet?

### FINDINGS OF FACT

The following Findings of Fact (FF) are shown by a preponderance of the evidence.

#### *The Invention*

1. According to Appellants, the invention relates to a packet marking determining method and a related device for determining the marking of packets of an incoming packet-flow in conformance with a traffic policy. A first step designates a threshold value which lies between a minimum and a maximum value of the token count. A second step includes detecting the actual value of the token count or traffic reservation parameter. When the actual value of the token count exceeds the threshold value, the last step includes marking the packets based on the actual value of the token count. In the alternative, when the actual value of the token count is below the threshold value, the last step includes marking the packets based on the pre-assigned priority of the packet (Abstract; Spec. 2:9-23).

*Troxel*

2. Troxel discloses a two-stage policing including a first stage policing 88, wherein a token counter 90 maintains the count of the number of tokens presently contained in the "token bucket." The token counter 90 also has an upper (maximum) and an associated normal priority threshold value 94. With respect to high priority packets arriving on flow 92, the packet length (represented in number of tokens to pass the packet) is compared to the direct value of token counter 90. With respect to low priority packets, the packet length is compared to the value of token counter 90 minus the normal priority threshold value 94. When either type of packet is below the compared value, it represents the fact that there are not enough tokens to send it. As a result, the packet is marked as 'non-conforming', at location 97. At this point, 'non-conforming' packets may be dropped, depending on the policing mode (Figs. 10 and 11; col. 20, ll. 37-55).

3. Troxel discloses that during a second stage policing 89, an aggregate token counter 100 is updated by token rate R, wherein R can be the sum of the rates for first stage token buckets 90. Aggregate token counter 100 has associated with it an aggregate normal priority threshold value 102, which is similar to normal priority threshold values 94 in first stage policing 88. In this second stage, the packets that were conforming for the first stage policing are again compared to the value in aggregate token counter 100. If the packet is designated 'conforming high priority,' the packet length is compared against the direct value 100. If the packet is designated 'conforming low priority,' the packet length is compared to the direct value 100 minus an associated aggregate normal priority threshold value 102. Packets which fail are marked as 'non-conforming,' or dropped.

With respect to incoming packets marked ‘non-conforming,’ the packet length is compared to the direct value 100 minus an associated aggregate headroom threshold value 104. If there are enough tokens, then the packet may be marked conforming at 106 (col. 20, ll. 56-col. 21, l. 12).

4. Troxel discloses that there are three basic policies: (1) allow a packet and mark it conforming, (2) allow a packet and mark it non-conforming (tagging), or (3) drop a non-conforming packet. A packet becomes non-conforming when its size exceeds a maximum packet size or the token bucket has insufficient tokens (col. 18, ll. 5-15).

## PRINCIPLES OF LAW

On the issue of obviousness, the Supreme Court has stated that “the obviousness analysis cannot be confined by a formalistic conception of the words teaching, suggestion, and motivation.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 419 (2007). Further, the Court stated “[t]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” *Id.* at 416.

## ANALYSIS

### *Claims 1-3, 5-10, and 12-16*

Independent claim 1 recites that “if said actual value of said traffic reservation parameter is below said threshold value for said traffic reservation parameter, determining said packet marking of and marking each of said packets based on a pre-assigned priority of the packet.” Independent claims 8 and 16 are similar in scope to independent claim 1.

We consider Appellants' arguments to be persuasive to show Examiner error. Specifically, Troxel discloses a two stage policing method, wherein a packet is assessed by a first stage policing 88 and then by a second stage policing 89 (FF 2 and 3). When a packet arrives at the second stage policing 89, the packet is marked either 'conforming high priority', 'conforming low priority', or 'non-conforming' (FF 3 and 4). Troxel discloses that in the second stage policing 89, the packet length is compared against direct value 100 when the packet is a 'conforming high priority' packet (FF 3). In the alternative, when the packet is marked 'conforming low priority,' the packet length is compared against the direct value 100 minus the aggregate normal priority threshold value 102 (FF 3). The packet length of a non-conforming packet is compared to the direct value minus the aggregate headroom threshold 104 (FF 3). We find that it is apparent that when marking packets as non-conforming, there is no distinction made between those packets that were previously high priority as opposed to low priority after the packet length has been determined to be below the relevant threshold value (FF 2, 3, and 4). All packets that are determined to be below the relevant threshold value are thereafter marked 'non-conforming' *without regard to the pre-assigned priority* of the packet (FF 2, 3, and 4).

As such, we find that Troxel does not disclose when the actual value of the traffic reservation parameter (the level of tokens) is below the normal priority threshold value, that the packets are marked based on a pre-assigned priority of the packet.

We find that Troxel and Wang do not teach all the limitations of independent claims 1, 8, and 16. Thus, we find error in the Examiner's rejection of claims 1-3, 5-10, and 12-16 under 35 U.S.C. § 103(a) as



unpatentable over Troxel in view of Wang, and we will not sustain the rejection.

*Claims 4 and 11*

As noted *supra*, we reversed the rejection of claims 1 and 8, from which claims 4 and 11 depend. Appellants present no separate argument for the patentability of dependent claims 4 and 11. We therefore reverse the rejection of claims 4 and 11 under 35 U.S.C. § 103 as being unpatentable over Troxel in view of Wang and Chang for the same reasons expressed with respect to parent claims 1 and 8, *supra*.

CONCLUSION

The references do not disclose a method of marking packets, wherein if the actual value of the traffic reservation parameter is below the threshold value for the traffic reservation parameter, determining the packet marking of and marking each of the packets based on a pre-assigned priority of the packet.

ORDER

The Examiner's rejection of claims 1-16 is reversed.

Appeal 2009-007028  
Application 10/026,690

REVERSED

ELD

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